

Moving NIEHS Forward for the Next Five Years

Linda S. Birnbaum

¹National Institute of Environmental Health Sciences and National Toxicology Program, National Institute of Environmental Health Sciences

<https://doi.org/10.1289/EHP4356>

This month, the National Institute of Environmental Health Sciences (NIEHS) is happy to announce its new Strategic Plan. *NIEHS Strategic Plan 2018–2023: Advancing Environmental Health Science, Improving Health* (<https://www.niehs.nih.gov/about/strategicplan/index.cfm>) succeeds the 2012–2017 plan (NIEHS 2012), continuing to move the institute in the direction of cutting-edge, innovative environmental health science while maintaining continuity of important research and translational priorities.

The new Strategic Plan features a streamlined organization of three major themes.

1. “Theme I: Advancing Environmental Health Science” is the collection of NIEHS’s scientific research mission priorities. The goals articulated in this theme reflect many of the priorities in the 2012–2017 plan, but they have been updated to show where the science has moved forward. For example, whereas defining the concept of the exposome was a subgoal in the previous plan, the Exposome goal in the new plan emphasizes advancement of exposure science, development of new technologies, and integration of exposure science and the exposome into the wider universe of environmental health research, given the advances in this research area since 2012. Data Science and Big Data, which were part of a separate knowledge management goal in the 2012–2017 plan, have expanded and become a new goal under Theme I. Predictive Toxicology is another new goal in recognition of its status as a growing priority area within NIEHS and NTP.

2. “Theme II: Promoting Translation—Data to Knowledge to Action” brings all of NIEHS’s translational and public health priorities together in one group. Many of these priorities (e.g., Emerging Environmental Health Issues; Environmental Health Disparities; Outreach, Communication, and Engagement) existed as separate goals or subgoals in the 2012–2017 plan; however, collecting them together as an overarching theme gives greater importance and salience to NIEHS’s commitment to making a difference in public health.

Other goals in this theme reflect ongoing activities. For example, the goal on Evidence-Based Prevention and Intervention combines both a commitment to support research to develop these strategies and the associated commitment to promote the results of this research to the networks of people who can effect translation into risk reduction interventions on the ground. This goal is intimately integrated with the Partnerships for Action goal, which restates the need for relationships between NIEHS and a wide variety of partner organizations who can provide key input to set research priorities, help create better studies, and ensure effective dissemination of information and actions wherever they are needed to prevent harm and promote health.

3. “Theme III: Enhancing EHS through Stewardship and Support” covers investments and policies that are needed to build and maintain the research and translation enterprises described in Themes I and II. The goals in Theme III also reflect their counterparts in the strategic plan published by the National Institutes of Health (NIH 2015),

specifically Objective 3: Enhance Scientific Stewardship. Research training, both domestic and global, and promotion of workforce diversity in the environmental health sciences are two of the most fundamental aspects of this theme.

A notable component of Theme III is the goal on Impact Evaluation. The 2012–2017 plan included a nascent goal articulating the need to understand the economic impact of policies and other actions to reduce environmental exposures and prevent disease and disability. The new Impact Evaluation goal in Theme III of the 2018–2023 plan expands the outcomes of interest beyond economic impacts to social and health impacts as well.

Over a 16-month period starting in May 2017, NIEHS conducted a multistep planning process to identify both continuing priorities and new directions for the institute and the field of environmental health sciences for the next five years (Birnbaum 2017). The initial step was to gather input via an online tool, called the Trends & Insights Survey, which opened in June 2017 for a 60-d comment period. The tool offered the interested public an opportunity to provide general comments on overall needs and priorities in environmental health sciences for the next five years, as well as feedback on the goals of the 2012–2017 NIEHS Strategic Plan and their relevance for future institute plans and priorities. The Trends & Insights Survey engaged 219 respondents; over 400 separate comments were submitted. Comments covered the full range of NIEHS scientific mission, activities, and priorities. A report on the survey comments and an initial analysis was presented to the National Advisory Environmental Health Sciences Council (NAEHSC) at their fall 2017 meeting (NIEHS 2017).

With the analysis of these comments in hand, NIEHS staff and leadership began review of the issues raised in the online survey, changes in the state of the science since the publication of the 2012–2017 plan, and other considerations that would affect either the content or the organization of the successor plan. One such consideration was the publication in 2015 of the strategic plan for the full NIH (NIH 2015). This strategic plan was developed and published in response to a Congressional mandate [included in the 21st Century Cures Act: H.R. 34 Title II, Subtitle D, Section 2031 (U.S. Congress 2016)]. Individual institute plans are meant to align with the overall NIH strategic plan.

A first draft NIEHS plan was finalized in early February 2018, posted on the NIEHS website for comment, and presented to the NAEHSC. Comments were collected until the end of March. They were reviewed and considered, and changes to the draft were proposed, debated, and ultimately adopted. Final text of the plan was completed by the end of May and presented to the NAEHSC.

NIEHS has “lived” its 2012–2017 Strategic Plan, using it to drive decisions on funding announcements, workshops, symposia, intramural faculty hires, resource development, and communication strategies. The institute’s staff and leaders remain committed to extending and enriching the field of environmental health sciences over the next 5-year period, guided by the new Strategic Plan and by the vision of the NIEHS—to provide global

leadership for innovative research that improves public health by preventing disease and disability.

References

- Birnbaum LS. 2017. Updating the NIEHS Strategic Plan. *Environ Health Perspect* 125(7):071001, PMID: [28749368](https://pubmed.ncbi.nlm.nih.gov/28749368/), <https://doi.org/10.1289/EHP2502>.
- NIEHS (National Institute of Environmental Health Sciences). 2012. *Advancing Science, Improving Health: A Plan for Environmental Health Research*. NIH Publication 12-7935. Research Triangle Park, NC:National Institute of Environmental Health Sciences, National Institutes of Health, U.S. Department of Health and Human Services. https://www.niehs.nih.gov/about/strategicplan/strategicplan2012_508.pdf [accessed 6 August 2018].
- NIEHS. 2017. *Minutes of the One Hundred Fifty-Second Meeting of the National Advisory Environmental Health Sciences Council. October 3, 2017*. Research Triangle Park, NC: National Institute of Environmental Health Sciences, National Institutes of Health, U.S. Department of Health and Human Services. https://www.niehs.nih.gov/about/assets/docs/october_2017_minutes_508.pdf [accessed 6 August 2018].
- NIH (National Institutes of Health). 2015. *NIH-Wide Strategic Plan: Fiscal Years 2016–2020*. Bethesda, MD: National Institutes of Health, U.S. Department of Health and Human Services. <https://www.nih.gov/sites/default/files/about-nih/ssstrategic-plan-fy2016-2020-508.pdf> [accessed 6 August 2018].
- U.S. Congress. 21st Century Cures Act. 2016. Pub Law No. 114-255. (114th Congress, December 13, 2016). <https://www.congress.gov/bill/114th-congress/house-bill/34/text> [accessed 6 August 2018].